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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,202	07/23/2001	Sam Ochi	011775-010610US	5283

20350 7590 09/25/2002

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EXAMINER

TRA, ANH QUAN

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 09/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/915,202

Applicant(s)

OCHI, SAM

Examiner

Quan Tra

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawing figure 4 is objected as showing the resistor R4 coupled to positive terminal of the equivalent amplifier (OA). The output of the OA will either increasing constantly or decreasing constantly because of the positive feedback. According to figure 3, the output node of the OA is constant. Thus contradict with figure 4. Therefore, the input node which coupled to R4 must be negative terminal. The polarity of the input terminals of the OA must be exchanged.

### ***Specification***

The specification is objected as recite resistor R4 coupled to positive input terminal of the equivalent OA (figure 4). The output of the OA will either increasing constantly or decreasing constantly because of the positive feedback. According to figure 3, the output node of the OA is constant. Thus contradict with figure 4. Therefore, the input node which coupled to R4 must be negative terminal.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 12 are misdescriptive and render the claims indefinite as reciting “negative terminal of the shunt capacitor coupled to the second terminal of the feedback resistor and to the

positive terminal if the operational amplifier equivalent subcircuit". The circuit will not work for the connection recited above, see reason in the drawing objection. The polarity if the OA must be exchanged.

Claims 2-11 are rejected as including the indefiniteness of claim 1.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Wonters et al. (USP 4158824).

Insofar as understood, Wonters et al. discloses in the figure an active filter comprising a feedback resistor (Y2) having first and second terminals; a shunt capacitor (C1) having positive and negative terminals; an operational amplifier equivalent subcircuit (AMP) having positive and negative input terminals and an output terminal; and a voltage drop source (Y0', Y1') having positive (V0) and negative terminals (terminal which coupled to ground); wherein the positive terminal of the shunt capacitor is coupled to a positive terminal (V1) of a noisy load device (circuit which coupled between V1 and V3, e.g. G3) and to a positive terminal of a low noise direct current power supply (circuit which generating V1, not shown); wherein the negative terminal of the shunt capacitor is coupled to the second terminal of the feedback resistor and to the "positive" (negative) input terminal if the operational amplifier equivalent subcircuit; wherein the first terminal of the feedback resistor is coupled to the negative terminal of the noisy

load device and to the output terminal of the operational amplifier equivalent subcircuit; wherein the positive terminal of the voltage drop source is coupled to the “negative” (positive) terminal of the operational amplifier equivalent subcircuit; wherein the negative terminal of the voltage drop source is coupled to a negative terminal of the low noise direct current power supply (circuit which providing V1 also have to coupled to ground).

As to claim 11, it is inherent that the impedance of the active power filter is large in comparison to an impedance of the noisy load at a minimum noise frequency generated by the noisy load.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wouters et al. (USP 4158824).

Wouters et al.’s figure shows all limitations of the claims except for the noisy load comprises a switching DD to DC converter, a bushless DC fan, or a switching logic circuit. However, the selection for the load to be a switching DD to DC converter, a bushless DC fan, or a switching logic circuit is seen as an obvious design expedient dependent upon particular environment of use to ensure optimum performance.

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***Allowable Subject Matter***

7. Claims 2-7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 2-7 would be allowable because the prior art fails to teach or suggest a circuit (such as figure 3) having first resistor R1 coupled between the input of the OA1 and Vdrop and second resistor (R2) coupled between output of OA1 and M1.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references are cited as interest because they show some circuits analogous to the claimed invention.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan Tra whose telephone number is 703-308-6174. The examiner can normally be reached on 8:00 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



QT  
September 13, 2002



Terry D. Cunningham  
Primary Examiner